

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 September 2005 (29.09.2005)

PCT

(10) International Publication Number
WO 2005/090284 A1

(51) International Patent Classification⁷: **C07C 233/00**,
237/00

AYDT, Ewald, Mirko [DE/DE]; Lloyd-G.-Wells-Strasse
20, 14163 Berlin (DE).

(21) International Application Number:
PCT/EP2005/002920

(74) Agent: **ISENBRUCK, Günter**; Isenbruck Bösl Hörschler
Wichmann Huhn, Theodor-Heuss-Anlage 12, 68165
Mannheim (DE).

(22) International Filing Date: 18 March 2005 (18.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
04006461.0 18 March 2004 (18.03.2004) EP

(71) Applicant (for all designated States except US):
REVOTAR BIOPHARMACEUTICALS AG [DE/DE];
Neuendorfstrasse 24a, 16761 Hennigsdorf (DE).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
ZM, ZW.

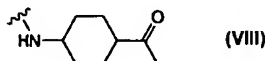
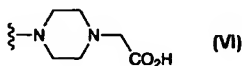
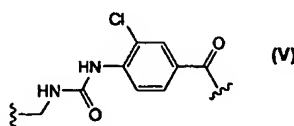
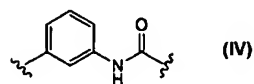
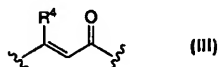
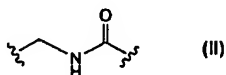
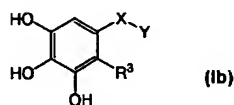
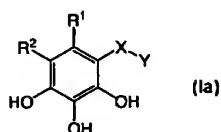
(72) Inventors; and

(75) Inventors/Applicants (for US only): **KRANICH, Remo**
[DE/DE]; Hennigsdorfer Str. 27d, 13503 Berlin (DE).

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: **NON-GLYCOSYLATED/NON-GLYCOSIDIC/NON-PEPTIDIC SMALL MOLECULE PSGL-1 MIMETICS FOR THE TREATMENT OF INFLAMMATORY DISORDERS**



(57) Abstract: Pharmaceutical compositions comprising at least one compound of the formulas (Ia) or (Ib) and a pharmaceutically acceptable carrier which is useful in a medicine, formula (Ia) and formula (Ib), wherein the symbols, indices and substituents have the following meaning $R^1=H$, CN, NO_2 , CF_3 , F, Cl, Br, I, CH_3 , $R^2=H$, CN, NO_2 , CF_3 , F, Cl, Br, I, CH_3 , Et, n-Pr, i-Pr, n-Bu, t-Bu, phenyl, thienyl, furyl, thiazolyl and either R^1 or R^2 must be H $R^3=H$, CN, NO_2 , CF_3 , F, Cl, Br, I, CH_3 , Et, n-Pr, i-Pr, n-Bu, t-Bu, phenyl, thienyl, furyl, thiazolyl then X is e.g., formula (II), or, formula (III), with R^4 being H, CH_3 , CH_2CH_3 or, formula (IV), or, formula (V), and Y being, formula (VI), or, formula (VII), or the pharmaceutically acceptable salts, esters or amides and prodrugs of the above identified compounds of formula (Ia) or (Ib). The compounds are applied to modulate the in-vitro and in-vivo binding processes mediated by E-, P- or L-selectin binding.



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG):

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.